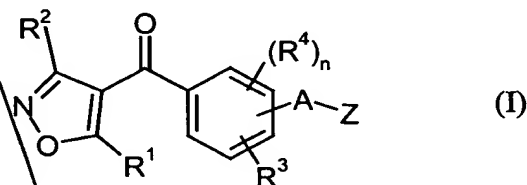


Patent Claims

1. Compounds of the general formula (I),



in which

n represents the number 0, 1, 2 or 3,

A represents a single bond or represents alkanediyl (alkylene),

R<sup>1</sup> represents hydrogen or represents in each case optionally substituted alkyl, alkenyl or cycloalkyl,

R<sup>2</sup> represents hydrogen, cyano, carbamoyl, halogen, or represents in each case optionally substituted alkyl, alkylcarbonyl, alkoxy, alkoxy-carbonyl, alkylthio, alkylsulphinyl or alkylsulphonyl,

R<sup>3</sup> represents hydrogen, nitro, cyano, carboxyl, carbamoyl, thio-carbamoyl, halogen, or represents in each case optionally substituted alkyl, alkoxy, alkylthio, alkylsulphinyl, alkylsulphonyl, alkylamino, dialkylamino or dialkylaminosulphonyl,

R<sup>4</sup> represents nitro, cyano, carboxyl, carbamoyl, thiocarbamoyl, halogen, or represents in each case optionally substituted alkyl, alkoxy, alkyl-thio, alkylsulphinyl, alkylsulphonyl, alkylamino, dialkylamino or di-alkylaminosulphonyl, and

Sub  
A<sup>1</sup>

- 136 -

Sub  
A<sup>1</sup>

5                    Z       represents an optionally substituted 4- to 12-membered, saturated or unsaturated, monocyclic or bicyclic, heterocyclic grouping which contains 1 to 4 hetero atoms (up to 4 nitrogen atoms and optionally - alternatively or additionally - one oxygen atom or one sulphur atom, or one SO grouping or one SO<sub>2</sub> grouping) and which additionally contains one to three oxo groups (C=O) and/or thioxo groups (C=S) as components of the heterocycle.

10                   2.       Compounds according to Claim 1, characterized in that

                  n       represents the number 0, 1 or 2,

15                   A       represents a single bond or represents alkanediyl (alkylene) having 1 to 4 carbon atoms,

20                   R<sup>1</sup>      represents hydrogen, represents optionally cyano-, halogen-, C<sub>1</sub>-C<sub>4</sub>-alkoxy-, C<sub>1</sub>-C<sub>4</sub>-alkylthio-, C<sub>1</sub>-C<sub>4</sub>-alkylsulphinyl- or C<sub>1</sub>-C<sub>4</sub>-alkylsulphonyl-substituted alkyl having 1 to 6 carbon atoms, represents optionally cyano- or halogen-substituted alkenyl having 2 to 6 carbon atoms, or represents optionally cyano-, halogen- or C<sub>1</sub>-C<sub>4</sub>-alkyl-substituted cycloalkyl having 3 to 6 carbon atoms,

25                   R<sup>2</sup>      represents hydrogen, cyano, carbamoyl, halogen, represents in each case optionally cyano-, halogen-, C<sub>1</sub>-C<sub>4</sub>-alkoxy-, C<sub>1</sub>-C<sub>4</sub>-alkylthio-, C<sub>1</sub>-C<sub>4</sub>-alkylsulphinyl- or C<sub>1</sub>-C<sub>4</sub>-alkylsulphonyl-substituted alkyl, alkylcarbonyl, alkoxy or alkoxycarbonyl having in each case up to 6 carbon atoms, or represents optionally halogen-substituted alkylthio, alkylsulphinyl or alkylsulphonyl having 1 to 6 carbon atoms,

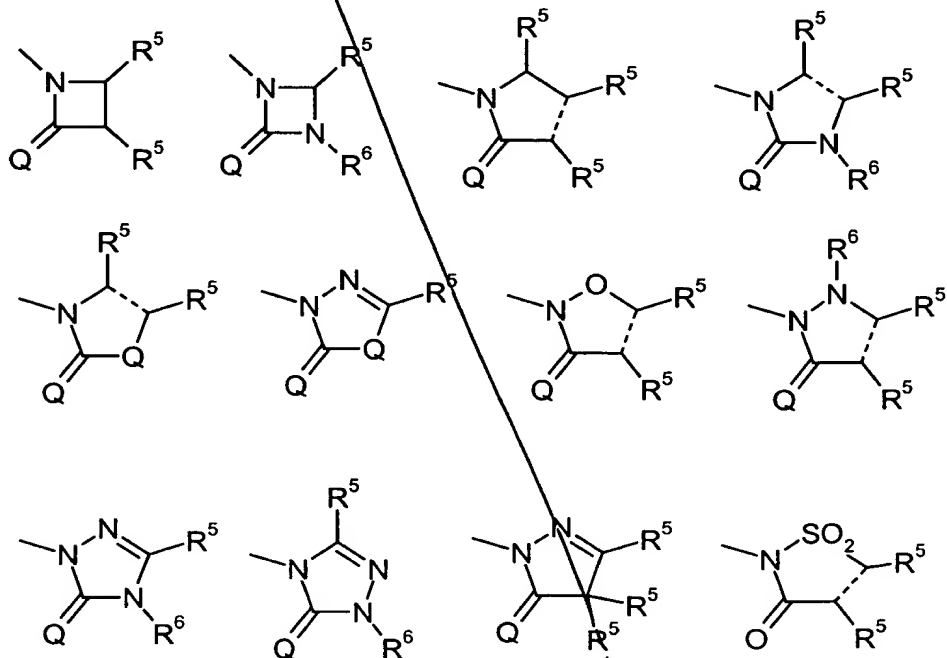
30                   R<sup>3</sup>      represents hydrogen, nitro, cyano, carboxyl, carbamoyl, thio-carbamoyl, halogen, represents in each case optionally halogen-,

Sub  
Al

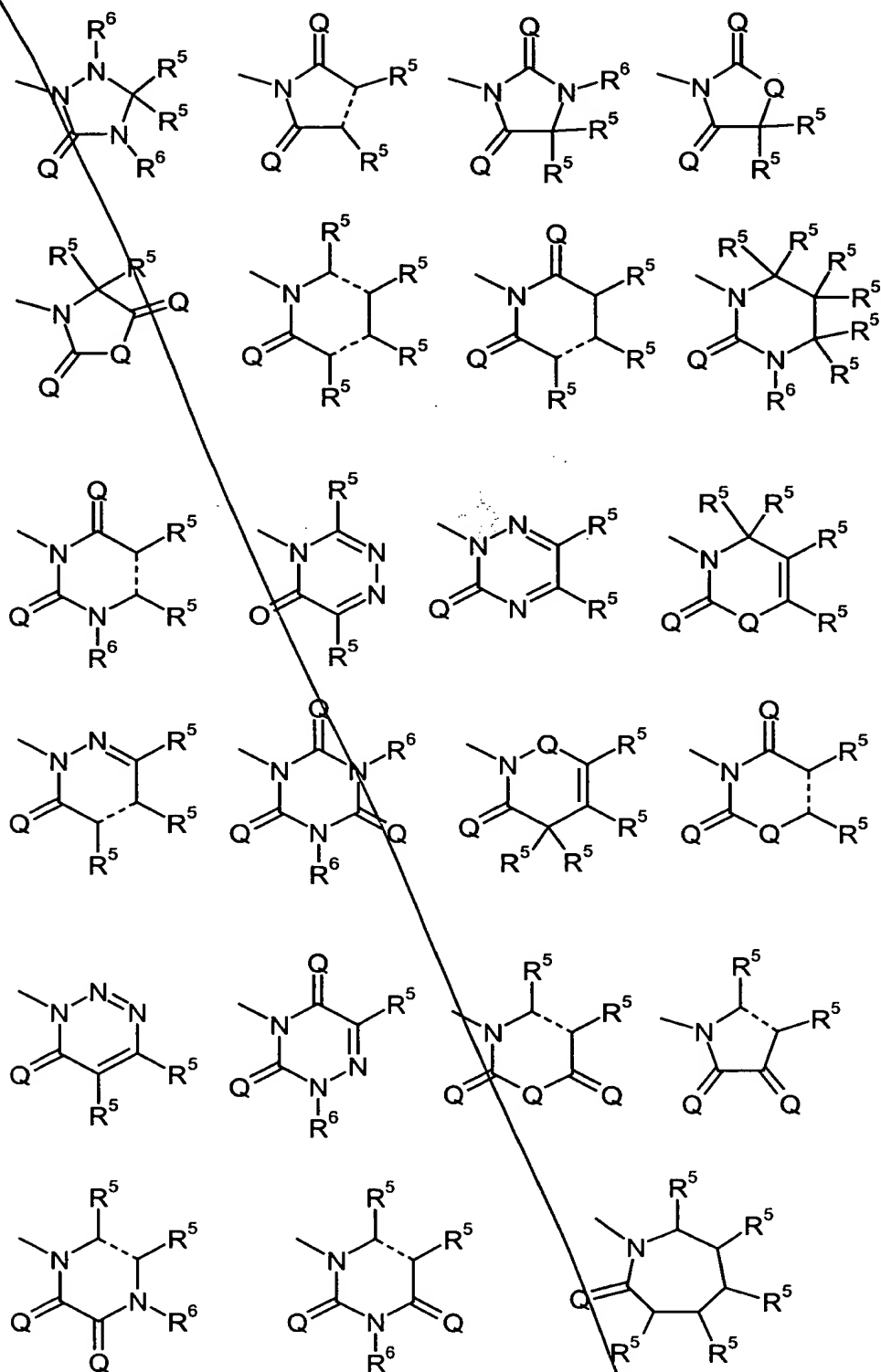
5 C<sub>1</sub>-C<sub>4</sub>-alkoxy-, C<sub>1</sub>-C<sub>4</sub>-alkylthio-, C<sub>1</sub>-C<sub>4</sub>-alkylsulphinyl- or C<sub>1</sub>-C<sub>4</sub>-alkylsulphonyl-substituted alkyl, alkoxy, alkylthio, alkylsulphinyl or alkylsulphonyl having in each case up to 4 carbon atoms in the alkyl groups, or represents alkylamino, dialkylamino or dialkylaminosulphonyl having in each case up to 4 carbon atoms in the alkyl groups,

10 R<sup>4</sup> represents nitro, cyano, carboxyl, carbamoyl, thiocarbamoyl, halogen, represents in each case optionally halogen-, C<sub>1</sub>-C<sub>4</sub>-alkoxy-, C<sub>1</sub>-C<sub>4</sub>-alkylthio-, C<sub>1</sub>-C<sub>4</sub>-alkylsulphinyl- or C<sub>1</sub>-C<sub>4</sub>-alkylsulphonyl-substituted alkyl, alkoxy, alkylthio, alkylsulphinyl or alkylsulphonyl having in each case up to 4 carbon atoms in the alkyl groups, or represents alkylamino, dialkylamino or dialkylaminosulphonyl having in each case up to 4 carbon atoms in the alkyl groups, and

15 Z represents one of the heterocyclic groupings below



Sub  
A1



in which the dotted bond is in each case a single bond or a double bond, and each heterocyclic grouping preferably only carries two substituents of the definition  $R^5$  and/or  $R^6$ ,

Q represents oxygen or sulphur,

$R^5$  represents hydrogen, hydroxyl, mercapto, cyano, halogen, represents in each case optionally cyano-, halogen-,  $C_1$ - $C_4$ -alkoxy-,  $C_1$ - $C_4$ -alkylthio-,  $C_1$ - $C_4$ -alkylsulphinyl- or  $C_1$ - $C_4$ -alkylsulphonyl-substituted alkyl, alkylcarbonyl, alkoxy, alkoxycarbonyl, alkylthio, alkylsulphinyl or alkylsulphonyl having in each case up to 6 carbon atoms in the alkyl groups, represents in each case optionally halogen-substituted alkylamino or dialkylamino having in each case up to 6 carbon atoms in the alkyl groups, represents in each case optionally halogen-substituted alkenyl, alkynyl, alkenyloxy, alkenylthio or alkenylamino having in each case up to 6 carbon atoms in the alkenyl or alkynyl groups, represents in each case optionally halogen-substituted cycloalkyl, cycloalkyloxy, cycloalkylthio, cycloalkylamino, cycloalkylalkyl, cycloalkylalkoxy, cycloalkylalkylthio or cycloalkylalkylamino having in each case 3 to 6 carbon atoms in the cycloalkyl groups and optionally up to 4 carbon atoms in the alkyl moiety, or represents in each case optionally halogen-,  $C_1$ - $C_4$ -alkyl- or  $C_1$ - $C_4$ -alkoxy-substituted phenyl, phenyloxy, phenylthio, phenylamino, benzyl, benzyloxy, benzylthio or benzylamino, represents pyrrolidino, piperidino or morpholino, or - if two adjacent radicals  $R^5$  and  $R^5$  are located at a double bond - also together with the adjacent radical  $R^5$  represents a benzo grouping, and

$R^6$  represents hydrogen, hydroxyl, amino, alkylidenamino having up to 4 carbon atoms, represents in each case optionally halogen- or  $C_1$ - $C_4$ -alkoxy-substituted alkyl, alkoxy, alkylamino, dialkylamino or

Sub A' 5  
10  
alkanoylamino having in each case up to 6 carbon atoms in the alkyl groups, represents in each case optionally halogen-substituted alkenyl, alkynyl or alkenyloxy having in each case up to 6 carbon atoms in the alkenyl or alkynyl groups, represents in each case optionally halogen-substituted cycloalkyl, cycloalkylalkyl or cycloalkylamino having in each case 3 to 6 carbon atoms in the cycloalkyl groups and optionally up to 3 carbon atoms in the alkyl moiety, or represents in each case optionally halogen-, C<sub>1</sub>-C<sub>4</sub>-alkyl- or C<sub>1</sub>-C<sub>4</sub>-alkoxy-substituted phenyl or benzyl, or together with an adjacent radical R<sup>5</sup> or R<sup>6</sup> represents optionally halogen- or C<sub>1</sub>-C<sub>4</sub>-alkyl-substituted alkanediyl having 3 to 5 carbon atoms,

15  
where the individual radicals R<sup>5</sup> and R<sup>6</sup> - if a plurality of them are attached to the same heterocyclic grouping - can have identical or different meanings within the scope of the above definition.

3. Compounds according to Claim 1 or 2, characterized in that

20  
A represents a single bond, methylene, ethylidene (ethane-1,1-diyl) or dimethylene (ethane-1,2-diyl),

25  
R<sup>1</sup> represents hydrogen, represents in each case optionally fluorine-, chlorine-, methoxy-, ethoxy-, n- or i-propoxy-, methylthio-, ethylthio-, n- or i-propylthio-, methylsulphinyl-, ethylsulphinyl, n- or i-propylsulphinyl-, methylsulphonyl-, ethylsulphonyl-, n- or i-propylsulphonyl-substituted methyl, ethyl, n- or i-propyl, n-, i-, s- or t-butyl, represents in each case optionally fluorine-, chlorine- or bromine-substituted propenyl, butenyl, propinyl or butinyl, or represents in each case optionally cyano-, fluorine-, chlorine-, bromine-, methyl- or ethyl-substituted cyclopropyl, cyclobutyl, cyclopentyl or cyclohexyl,

30

Sub<sup>5</sup>  
A<sup>1</sup>

R<sup>2</sup> represents hydrogen, cyano, carbamoyl, fluorine, chlorine, bromine, represents in each case optionally cyano-, fluorine-, chlorine-, methoxy- or ethoxy-substituted methyl, ethyl, n- or i-propyl, acetyl, propionyl, n- or i-butyryl, methoxy, ethoxy, n- or i-propoxy, methoxycarbonyl, ethoxycarbonyl, n- or i-propoxycarbonyl, or represents in each case optionally fluorine- and/or chlorine-substituted methylthio, ethylthio, n- or i-propylthio,

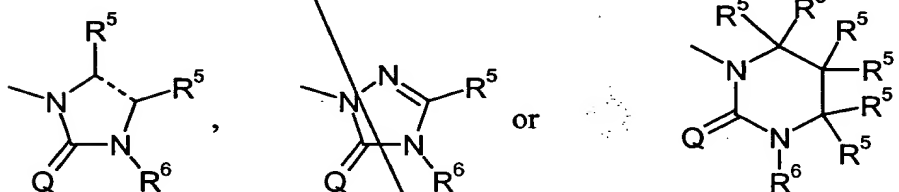
10 R<sup>3</sup> represents hydrogen, nitro, cyano, carboxyl, carbamoyl, thio-  
carbamoyl, fluorine, chlorine, bromine, iodine, represents in each case  
optionally fluorine- and/or chlorine-, methoxy-, ethoxy-, n- or  
i-propoxy-, methylthio-, ethylthio-, n- or i-propylthio-, methyl-  
sulphinyl-, ethylsulphinyl-, methylsulphonyl- or ethylsulphonyl-sub-  
stituted methyl, ethyl, n- or i-propyl, n-, i-, s- or t-butyl, represents in  
15 each case optionally fluorine- and/or chlorine-, methoxy-, ethoxy-, n-  
or i-propoxy-substituted methoxy, ethoxy, n- or i-propoxy, represents  
in each case optionally fluorine- and/or chlorine-substituted  
methylthio, ethylthio, n- or i-propylthio, methylsulphinyl, ethyl-  
sulphinyl, n- or i-propylsulphinyl, methylsulphonyl, ethylsulphonyl,  
20 n- or i-propylsulphonyl, or represents methylamino, ethylamino, n- or  
i-propylamino, dimethylamino, diethylamino, dimethylamino-  
sulphonyl or diethylaminosulphonyl,

25 R<sup>4</sup> represents nitro, cyano, carboxyl, carbamoyl, thiocarbamoyl, fluorine,  
chlorine, bromine, represents in each case optionally fluorine- and/or  
chlorine-, methoxy-, ethoxy-, n- or i-propoxy-, methylthio-, ethylthio-,  
n- or i-propylthio-, methylsulphinyl-, ethylsulphinyl-, methyl-  
sulphonyl- or ethylsulphonyl-substituted methyl, ethyl, n- or i-propyl,  
n-, i-, s- or t-butyl, represents in each case optionally fluorine- and/or  
30 chlorine-, methoxy-, ethoxy-, n- or i-propoxy-substituted methoxy,  
ethoxy, n- or i-propoxy, represents in each case optionally fluorine-

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and/or chlorine-substituted methylthio, ethylthio, n- or i-propylthio, methylsulphinyl, ethylsulphinyl, n- or i-propylsulphinyl, methylsulphonyl, ethylsulphonyl, n- or i-propylsulphonyl, or represents methylamino, ethylamino, n- or i-propylamino, dimethylamino, diethylamino, dimethylaminosulphonyl or diethylaminosulphonyl,

Z represents one of the groupings



R<sup>5</sup> represents hydrogen, hydroxyl, mercapto, cyano, fluorine, chlorine, bromine, iodine, represents in each case optionally fluorine-, chlorine-, methoxy-, ethoxy-, n- or i-propoxy-, n-, i-, s- or t-butoxy-, methylthio-, ethylthio-, n- or i-propylthio-, n-, i-, s- or t-butylthio-, methylsulphinyl-, ethylsulphinyl-, n- or i-propylsulphinyl-, methylsulphonyl-, ethylsulphonyl-, n- or i-propylsulphonyl-substituted methyl, ethyl, n- or i-propyl, n-, i-, s- or t-butyl, methoxy, ethoxy, n- or i-propoxy, n-, i-, s- or t-butoxy, methylthio, ethylthio, n- or i-propylthio, n-, i-, s- or t-butylthio, methylsulphinyl, ethylsulphinyl, n- or i-propylsulphinyl, methylsulphonyl, ethylsulphonyl, n- or i-propylsulphonyl, represents methylamino, ethylamino, n- or i-propylamino, n-, i-, s- or t-butylamino, dimethylamino, diethylamino, di-n-propylamino or di-i-propylamino, represents in each case optionally fluorine- and/or chlorine-substituted ethenyl, propenyl, butenyl, ethinyl, propinyl, butinyl, propenyloxy, butenyloxy, propenylthio, butenylthio, propenylamino or butenylamino, represents in each case optionally fluorine- and/or chlorine-substituted cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cyclopropyloxy,



Sub  
A1

5 cyclobutyloxy, cyclopentyloxy, cyclohexyloxy, cyclopropylthio, cyclobutylthio, cyclopentylthio, cyclohexylthio, cyclopropylamino, cyclobutylamino, cyclopentylamino, cyclohexylamino, cyclopropylmethyl, cyclobutylmethyl, cyclopentylmethyl, cyclohexylmethyl, cyclopropylmethoxy, cyclobutylmethoxy, cyclopentylmethoxy, cyclohexylmethoxy, cyclopropylmethylthio, cyclobutylmethylthio, cyclopentylmethylthio, cyclohexylmethylthio, cyclopropylmethylamino, cyclobutylmethylamino, cyclopentylmethylamino or cyclohexylmethylamino, or represents in each case optionally fluorine-, chlorine-, methyl-, ethyl-, n- or i-propyl-, n-, i-, s- or t-butyl-, methoxy-, ethoxy-, n- or i-propoxy-substituted phenyl, phenyloxy, phenylthio, phenylamino, benzyl, benzyloxy, benzylthio or benzylamino, represents pyrrolidino, piperidino or morpholino, or - if two adjacent radicals  $R^5$  and  $R^5$  are located at a double bond - together with the adjacent radical  $R^5$  also represents a benzo grouping, and

10

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$R^6$  represents hydrogen, hydroxyl, amino, represents in each case optionally fluorine- and/or chlorine-, methoxy- or ethoxy-substituted methyl, ethyl, n- or i-propyl, n-, i- or s-butyl, methoxy, ethoxy, n- or i-propoxy, methylamino, ethylamino or dimethylamino, represents in each case optionally fluorine- and/or chlorine-substituted ethenyl, propenyl, ethinyl, propinyl or propenyloxy, represents in each case optionally fluorine- and/or chlorine-substituted cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cyclopropylmethyl, cyclobutylmethyl, cyclopentylmethyl, cyclohexylmethyl, or represents in each case optionally fluorine-, chlorine-, methyl-, ethyl-, n- or i-propyl-, n-, i-, s- or t-butyl-, methoxy-, ethoxy-, n- or i-propoxy-substituted phenyl or benzyl, or together with an adjacent radical  $R^5$  or  $R^6$  represents in each case optionally methyl- and/or ethyl-substituted propane-1,3-diyl (trimethylene) or butane-1,4-diyl (tetramethylene).

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4. Compounds according to any of Claims 1 to 3, characterized in that

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Sub  
A<sup>1</sup>

R<sup>1</sup> represents hydrogen, represents in each case optionally fluorine-, chlorine-, methoxy-, ethoxy-, methylthio-, ethylthio-, methylsulphinyl-, ethylsulphinyl-, methylsulphonyl- or ethylsulphonyl-substituted methyl, ethyl, n- or i-propyl, n-, i-, s- or t-butyl, or represents optionally cyano-, fluorine-, chlorine-, bromine-, methyl- or ethyl-substituted cyclopropyl,

10 R<sup>2</sup> represents hydrogen, cyano, carbamoyl, fluorine, chlorine, bromine, represents in each case optionally cyano-, fluorine-, chlorine-, methoxy- or ethoxy-substituted methyl, ethyl, n- or i-propyl, n-, i-, s- or t-butyl, methoxycarbonyl, ethoxycarbonyl, n- or i-propoxycarbonyl, or represents in each case optionally fluorine- and/or chlorine-

15 substituted methylthio, ethylthio, n- or i-propylthio,

R<sup>3</sup> represents hydrogen, nitro, cyano, fluorine, chlorine, bromine, iodine, methyl, ethyl, trifluoromethyl, methoxymethyl, methylthiomethyl, methylsulphinylmethyl, methylsulphonylmethyl, methoxy, ethoxy, di-

20 fluoromethoxy, trifluoromethoxy, methylthio, ethylthio, methylsulphinyl, ethylsulphinyl, methylsulphonyl, ethylsulphonyl or dimethylaminosulphonyl,

25 R<sup>4</sup> represents nitro, cyano, fluorine, chlorine, bromine, methyl, ethyl, trifluoromethyl, methoxymethyl, methylthiomethyl, methylsulphinylmethyl, methylsulphonylmethyl, methoxy, ethoxy, difluoromethoxy, trifluoromethoxy, methylthio, ethylthio, methylsulphinyl, ethylsulphinyl, methylsulphonyl, ethylsulphonyl or dimethylamino-

30 sulphonyl,

Sub<sup>5</sup>  
A1

R<sup>5</sup> represents hydrogen, hydroxyl, chlorine, bromine, methyl, ethyl, n- or i-propyl, n-, i-, s- or t-butyl, difluoromethyl, dichloromethyl, trifluoromethyl, trichloromethyl, chlorodifluoromethyl, fluorodichloromethyl, fluoroethyl, chloroethyl, difluoroethyl, dichloroethyl, fluoro-n-propyl, fluoro-i-propyl, chloro-n-propyl, chloro-i-propyl, methoxymethyl, ethoxymethyl, methoxyethyl, ethoxyethyl, methoxy, ethoxy, n- or i-propoxy, n-, i-, s- or t-butoxy, fluoroethoxy, chloroethoxy, difluoroethoxy, dichloroethoxy, trifluoroethoxy, trichloroethoxy, chlorofluoroethoxy, chlorodifluoroethoxy, fluorodichloroethoxy, methylthio, ethylthio, n- or i-propylthio, fluoroethylthio, chloroethylthio, difluoroethylthio, dichloroethylthio, chlorofluoroethylthio, chlorodifluoroethylthio, fluorodichloroethylthio, methylsulphinyl, ethylsulphinyl, n- or i-propylsulphinyl, methylsulphonyl, ethylsulphonyl, n- or i-propylsulphonyl, dimethylamino, propenylthio, butenylthio, propinylthio, butinylthio, cyclopropyl, cyclopropylmethyl, cyclopropylmethoxy, phenyl or phenoxy, and

R<sup>6</sup> represents amino, methyl, ethyl, n- or i-propyl, n-, i-, s- or t-butyl, methoxy, ethoxy, methylamino, dimethylamino, cyclopropyl or cyclopropylmethyl, or together with R<sup>5</sup> represents propane-1,3-diyl (trimethylene), butane-1,4-diyl (tetramethylene) or pentane-1,5-diyl (pentamethylene).

5. Compounds according to any of Claims 1 to 4, characterized in that

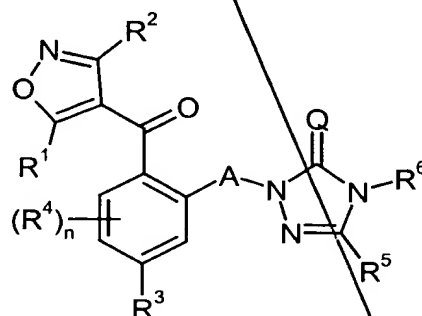
A represents methylene.

6. Compounds according to any of Claims 1 to 5, characterized in that

Q represents oxygen (O).

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7. Compounds according to any of Claims 1 to 6, characterized in that  
R<sup>1</sup> represents cyclopropyl.
8. Compounds according to any of Claims 1 to 7, characterized in that  
R<sup>2</sup> represents hydrogen, methoxycarbonyl or ethoxycarbonyl.
9. Compounds according to any of Claims 1 to 8, characterized in that  
R<sup>6</sup> represents methyl, dimethylamino or cyclopropyl.
10. Compounds according to any of Claims 1 to 9, characterized in that  
R<sup>3</sup> represents chlorine, bromine, cyano, trifluoromethyl or methylsulphonyl.
11. Compounds according to any of Claims 1 to 10, characterized in that  
R<sup>4</sup> represents hydrogen, cyano, chlorine, nitro, methyl, trifluoromethyl, methoxy or methylsulphonyl.
12. Compounds according to any of Claims 1 to 11 of the general formula (IA)

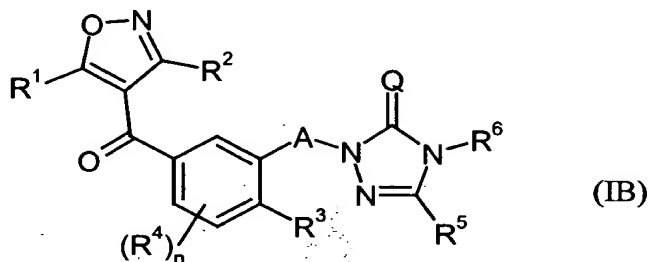


(IA)

in which

n, A, Q, R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>5</sup> and R<sup>6</sup> are each as defined in any of Claims 1 to 11.

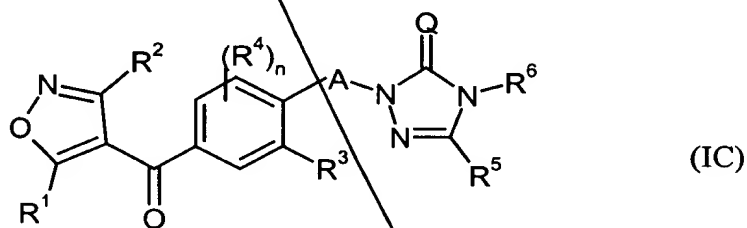
5 13. Compounds according to any of Claims 1 to 11 of the general formula (IB)



in which

10 n, A, Q, R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>5</sup> and R<sup>6</sup> are each as defined in any of Claims 1 to 11.

14. Compounds according to any of Claims 1 to 11 of the general formula (IC)



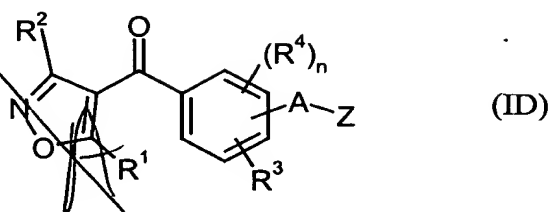
15 in which

n, A, Q, R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>5</sup> and R<sup>6</sup> are each as defined in any of Claims 1 to 11.

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15. Compounds according to any of Claims 1 to 11 of the general formula (ID)

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in which

n, A, Q, R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>5</sup> and R<sup>6</sup> are each as defined in any of Claims 1 to

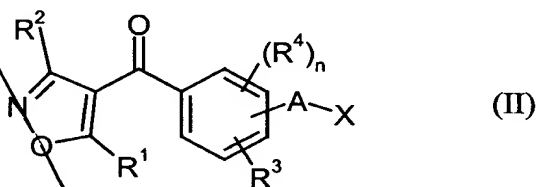
5

11.

16. Process for preparing compounds according to any of Claims 1 to 15, characterized in that

10

(a) benzoylisoxazoles of the general formula (II)



in which

15

n, A, R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> are each as defined in any of Claims 1 to 5, 7, 8, 10 and 11 and

X represents halogen

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are reacted with heterocycles of the general formula (III)



in which

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A2

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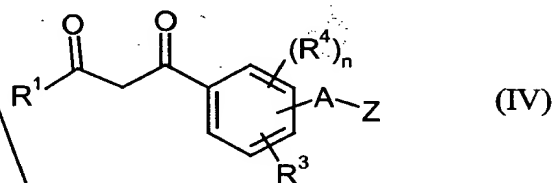
Z is as defined in Claims 1 or 2,

if appropriate in the presence of one or more reaction auxiliaries and if appropriate in the presence of one or more diluents,

or that

- if  $R^2$  is hydrogen-

(b) benzoyl ketones of the general formula (IV)



in which

$n$ ,  $A$ ,  $R^1$ ,  $R^3$ ,  $R^4$  and  $Z$  are each as defined in any of Claims 1 to 5, 7, 10 and

are reacted with an orthoformic ester or an  $N,N$ -dimethylformamide acetal

and subsequently with hydroxylamine or an acid adduct thereof,

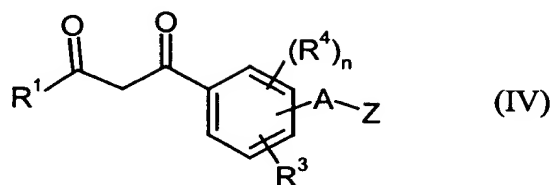
if appropriate in the presence of one or more reaction auxiliaries and if appropriate in the presence of one or more diluents,

or that

- if  $R^2$  represents optionally substituted alkoxycarbonyl -

(c) benzoyl ketones of the general formula (IV)

- 150 -



Sub  
A2

in which

n, A, R<sup>1</sup>, R<sup>3</sup>, R<sup>4</sup> and Z are each as defined in any of Claims 1 to 5, 7, 10 and

11

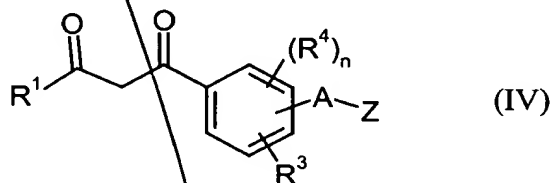
are reacted with a cyanoformic ester and then with hydroxylamine or an acid adduct thereof, or with an alkyl chloro-hydroximino-acetate,

if appropriate in the presence of one or more reaction auxiliaries and if appropriate in the presence of one or more diluents,

or that

- if R<sup>2</sup> represents alkylthio -

(d) benzoyl ketones of the general formula (IV)



in which

n, A, R<sup>1</sup>, R<sup>3</sup>, R<sup>4</sup> and Z are each as defined in any of Claims 1 to 5, 7, 10 and

11



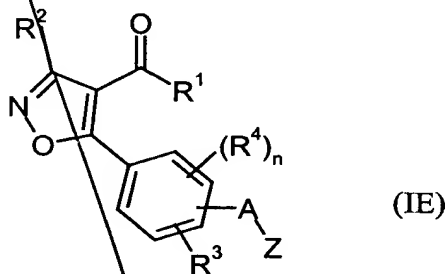
are reacted with carbon disulphide and with an alkylating agent

and then with hydroxylamine or an acid adduct thereof,

if appropriate in the presence of one or more reaction auxiliaries and if appropriate in the presence of one or more diluents,

and electrophilic or nucleophilic substitutions and/or oxidations or reductions within the scope of the definition of the substituents are, if appropriate, subsequently carried out in a customary manner on the compounds of the formula (I) obtained according to processes (a) to (d).

17. Compounds of the general formula (IE)

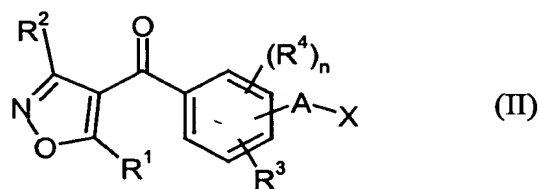


in which

$n$ ,  $A$ ,  $R^1$ ,  $R^2$ ,  $R^3$ ,  $R^4$  and  $Z$  are each as defined in any of Claims 1 to 5, 7, 8, 10 and 11.

18. Compounds of the general formula (II), except for ethyl 4-(2-bromo-methyl-benzoyl)-5-cyclopropyl-isoxazole-3-carboxylate,

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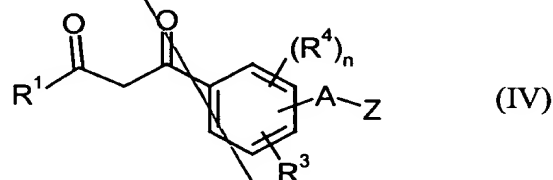
Sub  
A2

in which

$n$ ,  $A$ ,  $R^1$ ,  $R^2$ ,  $R^3$  and  $R^4$  are each as defined in any of Claims 1 to 5, 7, 8, 10 and 11 and

$X$  represents halogen.

19. Compounds of the general formula (IV)



in which

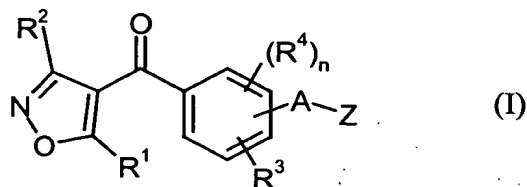
$n$ ,  $A$ ,  $R^1$ ,  $R^3$ ,  $R^4$  and  $Z$  are each as defined in any of Claims 1 to 5, 7, 10 and 11.

20. Herbicidal compositions, characterized in that they comprise at least one compound according to any of Claims 1 to 14 and customary extenders.

21. Use of at least one compound according to any of Claims 1 to 14 for controlling undesirable plants.

**Substituted benzoylisoxazoles****Abstract**

The invention relates to novel substituted benzoylisoxazoles of the general formula (I),



in which

n represents the number 0, 1, 2 or 3,

A represents a single bond or represents alkanediyl (alkylene),

R<sup>1</sup> represents hydrogen or represents in each case optionally substituted alkyl, alkenyl or cycloalkyl,

R<sup>2</sup> represents hydrogen, cyano, carbamoyl, halogen, or represents in each case optionally substituted alkyl, alkylcarbonyl, alkoxy, alkoxy carbonyl or alkylthio, alkylsulphinyl or alkylsulphonyl,

R<sup>3</sup> represents hydrogen, nitro, cyano, carboxyl, carbamoyl, thiocarbamoyl, halogen, or represents in each case optionally substituted alkyl, alkoxy, alkylthio, alkylsulphinyl, alkylsulphonyl, alkylamino, dialkylamino or dialkylaminosulphonyl,

R<sup>4</sup> represents nitro, cyano, carboxyl, carbamoyl, thiocarbamoyl, halogen, or represents in each case optionally substituted alkyl, alkoxy, alkylthio,

alkylsulphinyl, alkylsulphonyl, alkylamino, dialkylamino or dialkylamino-sulphonyl, and

Z represents an optionally substituted 4- to 12-membered, saturated or unsaturated, monocyclic or bicyclic, heterocyclic grouping which contains 1 to 4 hetero atoms (up to 4 nitrogen atoms and optionally - alternatively or additionally - one oxygen atom or one sulphur atom, or one SO grouping or one SO<sub>2</sub> grouping) and which additionally contains one to three oxo groups (C=O) and/or thioxo groups (C=S) as components of the heterocycle,

and to processes for their preparation and to their use as herbicides.